

TITLE

DUAL POLARIZATION VIVALDI NOTCH/MEANDER LINE LOADED ANTENNA

FIELD OF INVENTION

This invention relates to ultra wideband antennas and more particularly to the provision of a dual polarity Vivaldi Notch/Meander Line loaded antenna system.

BACKGROUND OF THE INVENTION

The Vivaldi Notch/Meander Line Loaded Antenna (MLA)

As described in a co-pending Patent Application Serial No. ^{10/629,454} filed on even date herewith by John T. Apostolos, entitled "Combined Ultra Wideband Vivaldi Notch/Meander Line Loaded Antenna" Docket No. D-2003-0021 assigned to the assignment hereof and incorporated herein by reference, a Vivaldi notch structure in one plane is provided, which yields a 100:1 bandwidth characteristic. This antenna has a horizontal or linear polarization characteristic, which while exceedingly useful in horizontally polarized antenna scenarios, is not as effective as it might be when dealing with circularly polarized applications.

As will be appreciated, there has long been a requirement for a very wideband array antenna to cover, for instance, a band of 100:1 or even 300:1. The purpose of such an antenna is for any ultra wideband application in which one seeks to have a single lobe from the antenna array uncorrupted by so called grating lobes which are the spurious lobes which are the result of standing waves in the elements and element spacings greater than .5 wavelength.